APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,902	09/10/2003	Sundararajan Sriram	TI-28564.1	3595

			EXAMINER
23494	7590	07/01/2005	RAMOS FELICIANO, ELISEO

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ART UNIT	PAPER NUMBER
2687	

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2005*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 13-17* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 13-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Specification

1.   Previous objection to the specification is withdrawn in view of the amendment

filed April 14, 2005.

Double Patenting

2.   The nonstatutory double patenting rejection is based on a judicially created
doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the
unjustified or improper timewise extension of the "right to exclude" granted by a patent
and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d
1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed.
Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*,
422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163
USPQ 644 (CCPA 1969).

        A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be
used to overcome an actual or provisional rejection based on a nonstatutory double
patenting ground provided the conflicting application or patent is shown to be commonly
owned with this application. See 37 CFR 1.130(b).

        Effective January 1, 1994, a registered attorney or agent of record may sign a
terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply
with 37 CFR 3.73(b).

Issue I: U.S. Patent No. 6,665,277

3.   **Claims 1-5 and 13-17** are rejected under the judicially created doctrine of

obviousness-type double patenting as being unpatentable over the claims (applied below)

of U.S. Patent No. 6,665,277 (simply "6,665,277" hereinbelow). Although the

conflicting claims are not identical, they are not patentably distinct from each other

because of the following.

        Regarding **claim 1**, claim 1 of U.S. Patent No. 6,665,277 discloses a method,

comprising the steps of:

- receiving a frame of data having a predetermined number of time slots (column 6, lines 29-31);

- receiving a plurality of data symbols in each respective time slot (column 6, lines 33-34); and

- receiving each of a primary, a secondary and a tertiary synchronization code in each said predetermined number of time slots (column 6, lines 35-37).

In addition, claim 1 of 6,665,277 is more specific than claim 1 of present application. However, omission of element and its function in combination is obvious expedient if remaining elements perform same functions as before. In re KARLSON (CCPA) 136 USPQ 184 (1963).

Regarding **claims 2-5**, claim 1 of 6,665,277 discloses everything claimed as applied above. In addition, claims 3-6 of 6,665,277, respectively, disclose every single feature further claimed (see column 6, line 64 to column 7, line 8).

Regarding **claim 13**, claim 8 of U.S. Patent No. 6,665,277 discloses a method, comprising the steps of:

- transmitting a frame of data having a predetermined number of time slots (col. 7, lines 23-24);

- transmitting a plurality of data symbols in each of said time slots (col. 7, lines 26-27); and

- transmitting a primary, a secondary and a tertiary synchronization code in each of said time slots (col. 7, lines 28-30).

In addition, claim 8 of 6,665,277 is more specific than claim 13 of present application. However, omission of element and its function in combination is obvious

expedient if remaining elements perform same functions as before. In re KARLSON (CCPA) 136 USPQ 184 (1963).

Regarding **claims 14-17**, claim 8 of 6,665,277 discloses everything claimed as applied above. However, it fails to specify the further steps required by claims 14-17 of present application.

Claim 9 of 6,665,277 teaches an analogous method to the one of claim 8 of 6,665,277. Claims 10-13 of 6,665,277, respectively, disclose every single feature further claimed by claims 14-17 of present application (see column 8, lines 16-27).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify claim 8 of 6,665,277 with the teachings of claims 10-13 of 6,665,277, respectively, to include the further steps required by claims 14-17 of present application because they are suggested by the same set of claims of U.S. Patent No. 6,665,277.

Issue II: copending Application No. 10/606,816

4.   **Claims 1-5 and 13-17** are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of copending Application No. 10/606,816 (simply "10/606,816" hereinbelow). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following.

Regarding **claim 1**, claim 1 of copending Application No. 10/606,816 discloses a method, comprising the steps of:

- receiving a frame of data having a predetermined number of time slots;

- receiving a plurality of data symbols in each respective time slot; and

- receiving each of a primary, a secondary and a tertiary synchronization code in each said predetermined number of time slots.

In addition, claim 1 of 10/606,816 is more specific than claim 1 of present application. However, omission of element and its function in combination is obvious expedient if remaining elements perform same functions as before. In re KARLSON (CCPA) 136 USPQ 184 (1963).

Regarding **claims 2-5**, claim 1 of 10/606,816 discloses everything claimed as applied above. In addition, claims 2-5 of 10/606,816, respectively, disclose every single feature further claimed.

Regarding **claim 13**, claim 13 of copending Application No. 10/606,816 discloses a method, comprising the steps of:

- transmitting a frame of data having a predetermined number of time slots;

- transmitting a plurality of data symbols in each of said time slots; and

- transmitting a primary, a secondary and a tertiary synchronization code in each of said time slots.

In addition, claim 13 of 10/606,816 is more specific than claim 13 of present application. However, omission of element and its function in combination is obvious expedient if remaining elements perform same functions as before. In re KARLSON (CCPA) 136 USPQ 184 (1963).

Regarding **claims 14-17**, claim 13 of 10/606,816 discloses everything claimed as applied above. In addition, claims 14-17 of 10/606,816, respectively, disclose every single feature further claimed.

5.   This is a <u>provisional</u> obviousness-type double patenting rejection because the

conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall ' have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7.   **Claims 1-4 and 13-16** are rejected under 35 U.S.C. 102(e) as being anticipated by

Nyström et al. (US Patent Number 6,185,244).

Regarding **claim 1**, Nyström et al. discloses a method including the steps of:

receiving a frame (Figure 16) of data having a predetermined number of time slots

(Slot 0 to Slot 15 – Figure 16);

receiving a plurality of data symbols (column 12, lines 14-15; column 2, line 3) in

each respective time slot; and

receiving each of a primary (STI), a secondary (LCI) and a tertiary (FTI)

synchronization code in each said predetermined number of time slots (Figure 18).

For clarity, to further facilitate understanding of the present rejection, should be

noted that the primary (STI), a secondary (LCI) and a tertiary (FTI) synchronization

codes are included in Nyström et al.'s PSC and SSC (as depicted in Figure 18), which in

turn are included in each time slot (column 12, line 10-12). The PSC and SSC are

separate of other chips (data symbols as claimed – column 2, line 3) also included in each

time slot (column 12, lines 14-15). The same frame that is transmitted (column 7, lines 13-20) is also received by a receiver (column 7, lines 21-27). Therefore, Nyström et al. discloses both receiving and corresponding transmitting steps.

Regarding **claims 2 and 3**, Nyström et al. discloses everything claimed as applied above (see *claim 1*). In addition, Nyström et al. discloses that the secondary (LCI) and the tertiary (FTI) synchronization codes identify a subset of codes (valid sequences); the secondary (LCI) and tertiary (FTI) synchronization codes are formed from a predetermined order (binary) of synchronization code elements (bits), the predetermined order corresponding to the subset of codes (valid sequences). See column 12, lines 28-51.

For clarity, to further facilitate understanding of the present rejection, the secondary (LCI) and a tertiary (FTI) synchronization codes are contained in the SSC. I.e., the SSC includes the combination of "the secondary and the tertiary synchronization codes" which in turn perform the same functions as claimed.

Regarding **claim 4**, Nyström et al. discloses everything claimed as applied above (see *claim 1*). In addition, Nyström et al. discloses that the secondary (LCI) and tertiary (FTI) synchronization codes are formed from a predetermined order (binary) of common synchronization code elements (bits). See column 12, lines 28-51.

For clarity, to further facilitate understanding of the present rejection, the secondary (LCI) and a tertiary (FTI) synchronization codes are contained in the SSC. I.e., the SSC includes the combination of "the secondary and the tertiary synchronization codes" which in turn perform the same functions as claimed. In addition, binary order by definition (inherently) includes two types of code elements (bits) which are common; therefore, "common synchronization code elements" is met by Nyström et al. as claimed.

Regarding **claim 13**, Nyström et al. discloses a method including the steps of:

transmitting a frame (Figure 16) of data having a predetermined number of time slots (Slot 0 to Slot 15 – Figure 16);

transmitting a plurality of data symbols (column 12, lines 14-15; column 2, line 3) in each of said time slots; and

transmitting a primary (STI), a secondary (LCI) and a tertiary (FTI) synchronization code in each of said time slots (Figure 18).

For clarity, to further facilitate understanding of the present rejection, should be noted that the primary (STI), a secondary (LCI) and a tertiary (FTI) synchronization codes are included in Nyström et al.'s PSC and SSC (as depicted in Figure 18), which in turn are included in each time slot (column 12, line 10-12). The PSC and SSC are separate of other chips (data symbols as claimed – column 2, line 3) also included in each time slot (column 12, lines 14-15). The same frame that is transmitted (column 7, lines 13-20) is also received by a receiver (column 7, lines 21-27). Therefore, Nyström et al. discloses both receiving and corresponding transmitting steps.

Regarding **claims 14 and 15**, Nyström et al. discloses everything claimed as applied above (see *claim 1*). In addition, Nyström et al. discloses that the secondary (LCI) and the tertiary (FTI) synchronization codes identify a subset of codes (valid sequences); the secondary (LCI) and tertiary (FTI) synchronization codes are formed from a predetermined order (binary) of synchronization code elements (bits), the predetermined order corresponding to the subset of codes (valid sequences). See column 12, lines 28-51.

For clarity, to further facilitate understanding of the present rejection, the secondary (LCI) and a tertiary (FTI) synchronization codes are contained in the SSC. I.e.,

the SSC includes the combination of "the secondary and the tertiary synchronization

codes" which in turn perform the same functions as claimed.

Regarding **claim 16**, Nyström et al. discloses everything claimed as applied above

(see *claim 1*). In addition, Nyström et al. discloses that the secondary (LCI) and tertiary

(FTI) synchronization codes are formed from a predetermined order (binary) of common

synchronization code elements (bits). See column 12, lines 28-51.

For clarity, to further facilitate understanding of the present rejection, the

secondary (LCI) and a tertiary (FTI) synchronization codes are contained in the SSC. I.e.,

the SSC includes the combination of "the secondary and the tertiary synchronization

codes" which in turn perform the same functions as claimed. In addition, binary order by

definition (inherently) includes two types of code elements (bits) which are common;

therefore, "common synchronization code elements" is met by Nyström et al. as claimed.

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

9.   **Claims 5 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Nyström et al. (US Patent Number 6,185,244).

Regarding **claim 5**, Nyström et al. discloses everything claimed as applied above

(see *claim 1*). In addition, Nyström et al. teaches that the FTI (tertiary synchronization

code) is used for frame timing by a mobile receiver. (Column 11, lines 58-63). However,

Nyström et al. fails to teach that the mobile receiver identifies a first time slot of the frame by the FTI (tertiary synchronization code) in the same embodiment just explained.

In a separate embodiment, but still in the same field of endeavor, Nyström et al. teaches that with frame timing information the mobile receiver (mobile station) is able to locate the boundary of the frame, that is, a first time slot. (Column 4, lines 38-52).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Nyström et al. so that the a mobile receiver can identify the first time slot of the frame by the tertiary synchronization code, because such technique is suggested by the same Nyström et al. as explained above, and it provides for more reliable communications.

Regarding **claim 17**, Nyström et al. discloses everything claimed as applied above (see *claim 13*). In addition, Nyström et al. teaches that the FTI (tertiary synchronization code) is used for frame timing by a mobile receiver. (Column 11, lines 58-63). However, Nyström et al. fails to teach the tertiary synchronization code order corresponds to an order of time slots in the frame in the same embodiment just explained.

In a separate embodiment, but still in the same field of endeavor, Nyström et al. teaches that with frame timing information the mobile receiver (mobile station) is able to locate the boundary of the frame, which corresponds to an order of the time slots. (Column 4, lines 38-52).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Nyström et al. so that the tertiary synchronization code order corresponds to an order of time slots in the frame, because

such technique is suggested by the same Nyström et al. as explained above, and it

provides for more reliable communications.

Response to Arguments

10.   Applicant's arguments filed April 14, 2005 have been fully considered but they

are not persuasive.

11.   With respect to the double-patenting rejection presented before and repeated

hereinabove, Applicant argues that In re KARLSON, 136 USPQ 184 (1963) "is

inapplicable since the law was changed subsequent to that decision" (see page 6 fourth

paragraph of the response).

In response, Applicant has not shown evidence in support to this allegation;

consequently, no weight can be given to that contention.

Nevertheless, regardless of In re KARLSON applicability, the question is

whether or not the conflicting claims are patentably distinct, or obvious. Applicant has

not presented any reasoning as to why the conflicting claims would not be patentably

distinct or obvious variation.

Conflicting claims in the instant application are not patentably distinct because

conflicting claims are broader and generic with respect to the applied reference claims,

i.e., an obvious variation. Many decisions support the fact that a broad or generic claim is

obvious from a specific claim, i.e., an obvious variation. See In re Van Ornum and Stang,

214 USPQ 761 (CCPA 1982); In re Goodman (CA FC) 29 USPQ2d 2010 (12/3/1993); In

re Vogel and Vogel, 164 USPQ 619 (CCPA 1970); In re Berg (CA FC) 46 USPQ2d

1226 (3/30/1998); Eli Lilly and Co. v. Barr Laboratories Inc., 58 USPQ2d 1865 (CA FC

2001). It is well settled that omission of an element and its function in a combination is

an obvious expedient if the remaining elements perform the same functions as before.

This notion is not only supported by In re KARLSON, 136 USPQ 184 (1963), but also In

re Nelson, 95 USPQ 82 (CCPA 1952); In re Eliot, 25 USPQ 111 (CCPA 1935).

12.   With respect to the double-patenting rejection presented before and repeated

hereinabove, Applicant argues that "there is otherwise no issue since this application in

its present form will not extend the monopoly of Patent No. 6,665,277" and that "the

enforceability of the subject application will expire concurrently with the cited patent"

(see page 6 third and fourth paragraphs of the response).

     In response, the doctrine of double patenting seeks to prevent not only the

problem of the unjustified extension of patent exclusivity beyond the term of a patent but

also the problem of dual ownership of patents to patentably indistinct inventions. See

MPEP 804 and 804.02.

     Applicant is cautioned that reliance upon a concurrent expiration date cannot

effectively substitute for the filing of one or more terminal disclaimers in order to

overcome a proper double patenting rejection, particularly since a concurrent expiration

date alone does not avoid the potential problem of dual ownership of patents to

patentably indistinct inventions.

13.   With respect to claims 1 and 13, Applicant argues that Nyström et al. does not

teach a primary, secondary and tertiary synchronization codes in each of the time slots

and that Nyström et al. nowhere mentions a third synchronization code (see page 6 last

paragraph of the response).

     In response, the Examiner respectfully disagrees because, as explained before,

Nyström et al. clearly teach a primary (STI), a secondary (LCI) and a tertiary (FTI)

synchronization codes (Figure 18). All three synchronization codes included in Nyström

et al.'s PSC and SSC that in turn are included in each time slot (column 12, line 10-12).

Nyström et al. fully meets the claimed language.

14.   With respect to claims 4-5 and 12-17, Applicant's arguments are a repetition that

builds upon argument presented for claims 1 and 13, explained above.

        In response, please refer to explanation above. Each limitation has been clearly

explained in the rejection above.

Conclusion

15.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of

time policy as set forth in 37 CFR 1.136(a).

        A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than

SIX MONTHS from the mailing date of this final action.

16.   Any inquiry concerning this communication from the examiner should be directed
to Eliseo Ramos-Feliciano whose telephone number is 571-272-7925. The examiner can
normally be reached from 8:00 a.m. to 5:30 p.m. on 5-4/9 1st Friday Off.
        If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Lester G. Kincaid, can be reached on (571) 272-7922. The fax phone number
for the organization where this application or proceeding is assigned is 703-872-9306.
        Information regarding the status of an application may be obtained from the
Patent Application Information Retrieval (PAIR) system. Status information for
published applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

6/24/05

ELISEO RAMOS-FELICIANO
PATENT EXAMINER

ERF/erf
June 22, 2005